



**North Dakota Department of Health**  
**Division of Water Quality**  
**Surface Water Quality Management Program**

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**North Dakota**  
**Nonpoint Source Pollution Management Program Plan**



**Final**  
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# **North Dakota Nonpoint Source Pollution Management Program Plan**

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## **I. INTRODUCTION**

Nonpoint source pollution control provisions were included in Section 319 of the reauthorized Clean Water Act in 1987. The State of North Dakota submitted and received approval from the Environmental Protection Agency (EPA) for its first Nonpoint Source Pollution Management Plan in late 1988. The original plan underwent a significant revision in February 1999 followed by several minor revisions between 1999 and 2008. To formally incorporate the minor revisions and reset the future direction of the NPS Program, the NPS Pollution Management Program Plan (Management Plan) was reviewed and updated again in April 2010.

During the review of the Management Plan, all the necessary steps were taken to address EPA's nine key elements for an effective NPS Pollution Management Program. More importantly, the April 2010 updates were completed to provide a renewed direction for the next 5 years. A majority of the revisions were minor, with most of the NPS Program's historic focus retained in the updated Management Plan. The NPS Program will continue to be a voluntary, incentive-based program focused on the delivery of financial and technical assistance to local NPS pollution abatement efforts across the state. In cooperation with a variety of partners, the NPS Program will also stay focused on the promotion of watershed-based management; local and statewide education; and management by incentive rather than regulation. For the foreseeable future, nonpoint source pollution management will continue to be a significant part of the solution to water resource management throughout the state.

Delivery of the NPS Program will be accomplished through six interrelated components. The goals, objectives and major actions for each delivery component are described in Sections IV through IX. A summary of these Sections is as follows:

- Resource Assessment - This section addresses the NPS Program's waterbody assessment process.
- Prioritization - This section discusses the prioritization methods and strategies within the NPS Program.
- Assistance - This section focuses on "how" the financial and technical assistance available through the Program will be delivered to state/local project sponsors.
- Coordination - Development and maintenance of partnerships with private and local/state/federal agencies and organizations are described in this section.
- Information/Education - The Program's public outreach efforts are described under this section.
- Evaluation/Monitoring – The steps and methods for NPS Program and local project evaluation and monitoring are addressed in this section.

In addition to the six Sections addressing program delivery, Section III also provides a summary of the NPS Program Monitoring Strategy. All of these Sections identify the various actions needed to ultimately

fulfill the NPS Program's mission and accomplish the long-term goal. The mission statement for the NPS Program is as follows:

**"The North Dakota NPS Program mission is to protect or restore the chemical, physical, and biological integrity of the waters of the state by promoting locally sponsored, incentive based, voluntary programs where those waters are threatened or impaired due to nonpoint sources of pollution."**

The long-term goal for the North Dakota Nonpoint Source Pollution Management Program (NPS Program) is to initiate a balanced program focused on the restoration and maintenance of the beneficial uses of water resources (i.e. streams, rivers, lakes, reservoirs, wetlands, aquifers) impaired by NPS pollution. In order to meet the long term goal, the NPS Program has established three primary objectives for the next 5 years. The first objective will focus on the assessment of the water quality and beneficial use conditions in 20 waterbodies across the state. The watersheds for the assessed waterbodies will include approximately 150 12 digit hydrologic units (HU). As a second objective, the NPS Program, through its partners, will utilize the assessment data to develop and implement restoration projects in 20 local priority watersheds. The third objective will focus on increasing public support and awareness for local and statewide NPS pollution management efforts. This will be accomplished by committing sufficient resources to coordinate the delivery of ongoing educational programs as well as assist with the development of new programs.

While the long term goal of the program is to initiate 20 watershed restoration projects by 2015, it has been the experience of the ND Department of Health (Department), that it requires between seven and ten years to complete a watershed restoration project. Therefore, many of the watershed restoration projects initiated by 2015 are not expected to be completed until 2021-2024.

It should also be recognized that the state's water quality monitoring and assessment program is a dynamic process. Each year new lakes, reservoirs, rivers, and streams will be assessed for the first time and previously monitored lakes, reservoirs, rivers, and streams are re-sampled and new assessments completed. Due to this dynamic process it is likely future Integrated Reports will identify new/additional waterbodies with beneficial uses impaired by NPS pollution. As a consequence, it is expected the financial and technical needs to develop and implement new watershed restoration projects will continue to grow throughout the effective period of the Management Plan

Progress toward meeting short and long term goals will be evaluated annually and at the end of the five year period for the updated Management Plan. Measurable outputs that will be used to evaluate progress will include; waterbody assessments completed; watershed restoration projects initiated, restored beneficial uses; applied best management practices (BMP); estimated pollutant load reductions; and documented water quality trends. The same information and data used to evaluate NPS Program progress will also be used to comply with the applicable EPA performance measures (e.g., WQ-10, SP-12, etc.).

## **II. NPS PROGRAM OVERVIEW**

In 1987 Congress acted on the need to expand the nation's pollution control efforts when they included provisions to control nonpoint source pollution in Section 319 of the reauthorized Clean Water Act.

Nonpoint source pollution as defined in the Act is pollution caused by diffuse sources that are not regulated as point sources. In more basic terms, NPS pollution can be a variety of contaminants (e.g., sediments, nutrients, etc.) that are delivered to surface waters by way of runoff or leached downward into groundwater. Some common sources of NPS pollution include urban streets and parking lots, construction sites, and agricultural lands.

Given the size of the agricultural industry in North Dakota, a majority of the Section 319 funds awarded to the state have been directed toward locally sponsored projects promoting voluntary NPS pollution control on agricultural lands. These funds have been used to support various educational activities and provide financial and technical assistance to landowners implementing best management practices (BMP). As a foundation for these efforts, a portion of the Section 319 budget is also used to support watershed assessments that are designed to evaluate existing water quality conditions and identify the sources and causes of any NPS pollutants impairing beneficial uses.

Since 1990, the NPS Program has used Section 319 funding to support over 85 local projects throughout the state. While the size, target audience, and structure of the projects have varied significantly, they all share the same basic objectives. These common objectives are: 1) increase public awareness of NPS pollution issues; 2) reduce/prevent the delivery of NPS pollutants to waters of the state; and 3) disseminate information on effective solutions to NPS pollution where it is threatening or impairing uses.

The initiatives supported with Section 319 funding include four different types of projects. These project types or categories are: 1) development phase projects; 2) watershed projects; 3) support projects; and 4) information/education projects. Although most projects clearly fit into one of these categories, some projects may include components from all four categories. A brief description of each of the project categories is as follows:

#### Development Phase Projects

Development phase projects are the first step for determining NPS pollution management needs and solutions. These projects are generally initiated by local groups or organizations in response to an observed water quality problem and/or other information on water quality conditions in a local watershed (e.g. lake water quality reports). Information and/or data collected through the development phase projects is typically used to: 1) determine the extent of beneficial use impairments associated with NPS pollution; 2) identify sources and causes of NPS pollution; 3) establish watershed-specific NPS pollutant load reduction targets for restoring impaired uses; and 4) identify feasible solutions to achieve the NPS pollutant load reduction goals. In some instances, multiple development phase projects may be implemented over several years to prioritize subwatersheds within a larger watershed or river basin. These types of development phase activities are used to prioritize the subwatersheds to schedule future monitoring and assessment efforts throughout the larger watershed or basin.

Development phase projects are generally one to two years in length. These assessment phase projects typically focus on the collection of various data (e.g. water quality, landuse, biological, etc.) to assess existing beneficial use conditions within the waterbody and identify the causes and sources of NPS pollution that may be impairing those uses. Project tasks include a review of



existing water quality and land use data and the collection of additional water quality, biological and/or land use data to allow an accurate assessment of the waterbody and its watershed. In conjunction with these activities, the project sponsors and NPS Program staff also conduct public meetings/workshops to gain local input and gauge the level of support for the implementation of a project addressing identified NPS pollution concerns. Information collected during the development phase projects assists local natural resource managers in identifying feasible management needs within the watershed and provides direction for the formulation of a watershed-based implementation plan.

### Watershed Projects

Watershed projects are the most comprehensive and long-term projects implemented through the NPS Program. These projects are designed to address documented NPS pollution impacts identified through previous development/assessment projects or TMDL Reports. The primary goal of watershed projects is to restore the beneficial uses of a waterbody that are impaired or threatened by NPS pollution. Project goals are generally accomplished by: 1) promoting voluntary application of BMPs; 2) providing financial and technical assistance to implement BMPs; 3) disseminating information on the project and planned solutions for the identified NPS pollution impacts; and 3) evaluating the progress toward NPS pollutant reduction goals. Local sponsors will try to utilize any available funding including Section 319 funds, USDA cost-share and local contributions to support their watershed restoration efforts. These funds will typically be used to employ staff, cost-share BMPs, conduct I&E events, and monitor trends in water quality, the biological communities and/or land use practices. Watershed projects, which are generally initiated as five year projects, can be extended another five or more years depending on progress; size of the watershed; and extent of beneficial use impairments associated with NPS pollution.

To effectively reduce or eliminate the transport of NPS pollutants to surface and/or ground water resources, various “source control” measures are implemented within the watershed project areas. Source control measures are simply defined as best management practices (BMPs) that are designed to: 1) prevent pollutants from leaving a specific area; 2) reduce/eliminate the introduction of pollutants; 3) protect sensitive areas; and/or 4) prevent the interaction between precipitation and pollutants. Specific BMPs supported by the NPS Program and the associated Section 319 cost share policies are described in the “North Dakota Nonpoint Source Pollution Management Program Cost Share Guidelines for Nonpoint Source Pollution Control Best Management Practices” (BMP Cost Share Guidelines). The BMP Cost Share Guidelines are available on the NPS Program web site: [http://www.ndhealth.gov/WQ/sw/Z1\\_NPS/default.htm](http://www.ndhealth.gov/WQ/sw/Z1_NPS/default.htm). Within each watershed project, the type of BMPs implemented will be dependent on the: 1) NPS pollutants being addressed; 2) specific sources and causes of NPS pollution; 3) NPS pollution delivery mechanisms; and 4) feasibility and affordability of the prescribed BMP.

### Support Projects

Projects designed to support BMP implementation efforts within other NPS project areas or to address a specific NPS pollution priority are identified as support projects. These projects can be statewide in scope or targeted toward specific NPS projects, geographic areas or priority

watersheds. Generally the support projects are developed to deliver a specific specialized service that is not readily available or the project offers financial and technical assistance to implement BMP addressing a specific priority NPS pollution issue in the state. These projects provide services such as engineering design assistance and/or planning and financial assistance to implement priority best management practices (e.g., livestock manure management systems, wetland restorations, or riparian buffers). Similar to the watershed projects, the support projects are dependent on continued need for the assistance or service offered and, as such, most support projects will be 5 or more years in length.

#### Information/Education Projects

The fourth type of NPS project is the information/education (I/E) project. As the name implies, projects in this category are those projects that are designed to educate the public on various NPS pollution issues. Educational projects can vary greatly in size, focus and target audience. Some projects may only use demonstrations or workshops to reach the target audience while others combine several educational offerings to deliver the NPS pollution management message. The information/education projects can be one to three years in length, with the option to extend an additional three years if adequate progress is demonstrated.

Sponsorship and management of the local NPS projects is usually provided by groups such as soil conservation districts (SCDs) and/or water resource boards (WRBs). Financial and/or technical assistance provided to the local sponsors through the NPS Program is typically directed toward activities such as staffing and support, BMP implementation, biological and water quality sample collection and analysis, data interpretation, and public meetings or other I/E events. Section 319 funding allocated to the local sponsors is provided at a 60% Section 319 and 40% local matching ratio. The local match, provided as cash and/or in kind services, is generally derived from a number of local partners including, SCDs, WRBs, city councils, private foundations, landowners, wildlife groups, and agricultural companies.

The NPS Program will continue to be a voluntary program directed toward locally sponsored initiatives. As a result, successful delivery of the program must include coordination with many local/state/federal agencies as well as private organizations. Through this coordination and formation of strong partnerships, the necessary financial and technical resources will be available to local sponsors to met their goals and demonstrate that nonpoint source pollution control/prevention can be accomplished effectively and voluntarily. Ultimately, within North Dakota, the success of any NPS pollution control project will be dependent on the ability of the local sponsors and their partners to demonstrate to agricultural producers and the general public that NPS pollution control and water quality improvement practices are compatible with and, in many cases, can enhance agricultural production.

### **III. NPS PROGRAM MONITORING STRATEGY**

#### **A. Monitoring Overview**

As a part of the Statewide Monitoring Strategy, the NPS Program monitoring strategy will focus on data collection efforts designed to assist with the implementation and evaluation of the ND NPS Pollution Management Program. The NPS Program monitoring strategy is project-based and includes two basic

goals. The first goal is to assist local resource managers with the collection of various data to determine NPS pollution management needs within priority watersheds. The second monitoring goal is to evaluate the benefits of NPS pollution management projects supported by the NPS Program and its local partners. To accomplish these goals, the NPS Program will be dependent on the support and involvement of local entities such as soil conservation districts and water resource boards as well as the participation of landowners, farmers and ranchers.

Implementation of the NPS Program monitoring strategy will be directed, in a large part, by information provided in the most current “Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads” (Integrated Report). Waterbodies included on the 303(d) list that have beneficial uses impaired by NPS pollution will be considered priority waterbodies for assessment work under the NPS Program. These 303(d) listed waterbodies will be the starting-point when planning assessment efforts with local project sponsors. To ensure a greater likelihood for the implementation of post-assessment corrective measures, the degree of local interest and support will also be used to further define local watershed assessment priorities. Through this process, the priorities established by the local sponsors may include a mix of 303(d) listed waterbodies along with some previously un-assessed waterbodies. These local watershed priorities will be the focus of assessment efforts initiated under the NPS Program monitoring strategy.

Evaluation of the NPS Program’s “on-the-ground” benefits will be focused on the local watershed projects. Upon completion of local assessment efforts, the NPS Program will provide financial and technical assistance to support watershed projects that implement best management practices (BMP) to address identified NPS pollution impacts. The affect the applied BMP have on the impaired use(s) and/or water quality will be the primary means used to define the success of local watershed projects as well as the NPS Program. Assessment data collected within the local watershed projects will establish the baseline conditions and the implementation phase monitoring will track the beneficial use and water quality trends relative to the baseline conditions. All data collected within the project areas will also be available to address program performance measures established by the EPA.

Central to each monitoring project is the Quality Assurance Project Plan (QAPP). The QAPP is the document that describes, in detail, how the watershed will be assessed or how the project will be evaluated. Each QAPP will be unique for the targeted watershed and will be the working document that describes all the steps and procedures associated with the planned data collection activities. Despite the many different monitoring options, the development and implementation of all NPS Program monitoring efforts generally follow a similar process from the assessment phase through the evaluation phase. Typical steps in this process are as follows:

- Coordinate with local entities (e.g., SCD, WRD, County Commissions, etc.) to identify local watershed assessment and/or implementation priorities. The main criteria used to define priorities will include current 303(d) waterbody listings; degree of local interest; observed beneficial use conditions, and current land management activities.
- Develop an assessment phase Quality Assurance Project Plan (QAPP) for the highest priority waterbody.

- Collect appropriate data (e.g., chemistry, biological, etc.) to document current beneficial use conditions and identify causes of any beneficial use impairments.
- Assess current land management in the watershed to determine sources of pollutants impairing beneficial uses.
- Compile and interpret all assessment data and develop an NPS Watershed Assessment Report and/or TMDL for 303(d) listed waterbodies.
- Coordinate with local entities to identify feasible solutions to restore and/or improve impaired beneficial uses
- Develop a watershed management plan that includes a QAPP to evaluate benefits associated with the implementation of the watershed plan.
- On an annual basis, track the implementation of corrective measures and, when applicable, utilize computer models to estimate associated pollutant load reductions. Primary models to be used include AnnAGNPS and the Animal Feedlot Runoff Risk Index Worksheet.
- Over the long term, collect the appropriate data to document actual in-stream and/or in-lake responses to land management improvements in the watershed.
- At the end of the project, compile and interpret all data to quantify water quality trends; redefine beneficial use conditions; and evaluate progress toward pollutant reduction and beneficial use improvement goals. Develop the appropriate report summarizing the project accomplishments.
- Based on data summaries, reevaluate future beneficial use restoration or maintenance needs.

As previously indicated, the NPS Program Monitoring Strategy is not designed to monitor NPS pollution trends throughout the state. Other monitoring activities under the Statewide Monitoring Strategy (e.g., ambient monitoring program; TMDL Program; etc.) will be used to gauge general statewide NPS pollution impacts and trends. Instead, the NPS Program monitoring strategy is designed to document the specific needs and/or success of locally sponsored watershed projects. The following sections provide a general description of the different components of the NPS Program Monitoring Strategy as they relate to the assessment or evaluation of local NPS pollution management projects.

## **B. Monitoring Objectives**

Monitoring activities supported through the NPS Program can be segregated into one of two general categories: NPS Pollution Assessment or NPS Project Evaluation. Data collected through NPS pollution assessment activities provide the foundation to: 1) define watershed management needs; 2) set beneficial use improvement goals; and 3) quantify pollutant reduction goals for the waterbody. This same assessment data is also used to update the Integrated Reports and/or develop TMDLs for 303(d) listed waterbodies within the assessed watershed.

The baseline conditions documented through assessment monitoring are the “reference points” used when evaluating progress during the implementation of watershed management plans. Over the long term, the assessment data and all subsequent data (e.g., water chemistry, biological, landuse, etc.) are used to quantify NPS pollution reductions and describe beneficial use improvements resulting from land management improvements accomplished through the local watershed projects.

Ultimately, the overall success of the NPS Program will be defined by the improvements and accomplishments of the local projects. For this reason, the NPS Program monitoring objectives are focused on data collection within the local project areas. Specific monitoring objectives for the NPS Program are as follows:

- Identify the sources and causes of NPS pollutants impairing the beneficial uses of local priority waterbodies.
- Evaluate project success and document progress toward pollutant reduction goals and beneficial use improvement goals.

### **C. Monitoring Design**

The design of all NPS Program monitoring efforts will be dependent on a number of factors including 1) watershed size; 2) waterbody type; 3) type of impaired beneficial uses; 4) NPS pollution sources and causes; 5) seasonal weather patterns; and 6) local land use practices. These same variables will also influence monitoring design considerations such as monitoring site locations, sampling frequencies, targeted parameters, and sampling methods. Given the diversity between watersheds, it is not feasible to have a set monitoring design for all NPS Program monitoring efforts. Instead, all factors that may influence a monitoring design are evaluated and addressed during the development of the site-specific quality assurance project plan (QAPP). The QAPP will describe the specific monitoring design and methods that will be used to ensure all data are representative of existing conditions within the targeted waterbody and its watershed.

### **D. Core and Supplemental Water Quality Indicators**

All NPS Program monitoring efforts are focused on the collection of data to determine beneficial use conditions as well as identify the sources and causes of any pollutants impairing those uses. The QAPPs for these projects will differ somewhat to account for variations in each watershed. However, in most cases, all QAPPs share the same basic objectives. These common objectives and the purposes of each are as follows:

- Water quality/quantity monitoring – Quantify nitrogen, phosphorus and total suspended solid loadings and trends. Fecal coliform bacteria and E. coli samples will also be collected to determine impacts to recreational uses.
- Macroinvertebrate monitoring – Establish a baseline score to evaluate current and future aquatic life conditions.

- Riparian Area Assessment – Evaluate the functionality and stability of the riparian corridor. Document the capability to support aquatic life and potential for sediment loading.
- Watershed land use modeling/inventory – Document current land management activities in the watershed and identify priority areas and BMP for future watershed planning efforts.

The direct measurement of water quality trends and beneficial use improvements can be very challenging due to variables such as annual weather patterns and delayed responses to applied practices. This is particularly true for the first 5-7 years of a watershed project. For this period and for annual reporting purposes, several supplemental methods may also be used to estimate water quality and/or beneficial use improvements. Some of the supplemental monitoring methods or tools that may be employed include: 1) STEPL or AnnAGNPS models; 2) Animal Feedlot Runoff Risk Index Worksheet; 3) tracking the location and amount of applied BMP; and 4) photo monitoring. The specific monitoring approach will vary between projects and be dependent on the specific goals and objectives of the project.

### **E. Quality Assurance**

The Quality Assurance Project Plan (QAPP) will provide a detailed description of each project's monitoring goals, objectives and tasks. The QAPP will also include information on applicable quality assurance/quality control measures, sampling frequencies and procedures, STORET sites; targeted parameters; and sample transportation and preservation procedures. Each QAPP will comply with the applicable EPA requirements and will be approved by the Department's Quality Assurance Coordinator.

### **F. Data Management**

All data collected by the NPS Program is stored in the Department's Sample Information Database (SID). This same data is also transferred to the EPA WQX/STORET data warehouse.

### **G. Data Analysis and Assessment**

The ND Department of Health's Chemistry and Microbiology labs are responsible for the analysis of the water quality, fecal coliform bacteria and E. coli samples collected by the NPS Program projects. Fish or macroinvertebrate samples are analyzed through contractual agreements with private firms and/or Valley City State University. Data interpretation is completed at the end of the projects and accomplished by NDDH Surface Water Program staff. The specific methods used to interpret data will vary between projects and will be described in each QAPP. Some methods that may be used include descriptive statistics, Seasonal Kendall test, BATHTUB model, and FLUX model.

### **H. Reporting**

A minimum of two reports will be developed during the course of a local watershed project. The first report will be developed at the conclusion of the assessment phase and the second report will be completed upon conclusion of the implementation phase. Data collected during an assessment project will be summarized in a watershed-specific NPS Pollution Assessment Report. In addition, if there are

303(d) listed reaches within the project area, the assessment data will also be used to develop the appropriate TMDLs. Both reports will include the data interpretations needed to assist with the development of a watershed management plan that will address NPS pollutants impairing the beneficial uses of the assessed waterbody.

For implementation phase watershed projects, an end-of-project report will be developed to summarize all data collected during the project period. These final data summary reports will provide a comparative analysis of pre and post project conditions. The reports will focus on the relationship between water quality/beneficial use trends and documented land use changes in the watershed. The degree to which the project achieved its goals for beneficial use improvement and/or pollutant load reductions will also be discussed in the end-of-project report. The data summaries will be included in the comprehensive final project report entered in the Grants Reporting and Tracking System (GRTS).

### **I. Monitoring Program Evaluation**

Given the “local” focus of the NPS Program’s monitoring strategy, the effectiveness of the Program’s monitoring efforts will essentially be measured by the number of successful monitoring projects supported by the NPS Program. Success will be defined by the completion of all components of the local monitoring initiatives and development of the final data summary reports. Feedback from local project sponsors and staff will also provide a means for evaluating the effectiveness of the NPS Program’s delivery system for technical and financial assistance.

### **J. General Support and Infrastructure Planning**

The NPS Program Staffing and Support Workplan describe the roles and responsibilities of Department staff involved in the NPS Program. Under the workplan, approximately 4 FTE are dedicated to the monitoring and assessment activities supported by the NPS Program. The workplan also provides a staffing budget for all NPS Program staff supported under the associated Section 319 Grant Award. For a detailed summary of future budgetary needs for NPS Program monitoring activities refer to the Statewide Monitoring Strategy.

## **IV. RESOURCE ASSESSMENT**

Within any watershed, the amount and type of NPS pollution can be extremely variable and dependant on many natural and/or man-made factors. Some of the natural factors that can affect NPS pollution delivery rates include precipitation intensity, vegetation, soil type, and topography. Alteration of the physical landscape through various land management activities (e.g. construction, livestock grazing, cropland tillage, stream channelization, etc.) also directly influences the type and amount of NPS pollution delivered to a particular waterbody. The sources of these NPS pollutants (Table 1) are also be quite diverse and may include areas such as clean-tilled croplands, city streets, concentrated livestock feeding areas, and modified or degraded stream channels. Given the many variables associated with NPS pollution, the development of projects that can accurately assess NPS pollution impacts is very challenging, but essential, to ensure the most effective measures are identified for future watershed restoration efforts.

**Table 1. Categories and Subcategories of NPS Pollution Sources.**

<u>Agriculture</u>	<u>Resource Extraction/Exploration/Development</u>
Non-irrigated crop production	Surface mining
Irrigated crop production	Subsurface mining
Pasture grazing - riparian and upland	Petroleum activities
Pasture grazing - riparian	Abandoned mining (gravel pits)
Pasture grazing - upland	
Concentrated animal feeding operations	<u>Land Disposal (runoff/leachate from areas)</u>
Aquaculture	Sludge
Rangeland - riparian and upland	Wastewater
Rangeland – riparian	Landfills
	Industrial land treatment
	On-site wastewater systems (septic tanks, etc.)
<u>Silviculture</u>	<u>Habitat Modification</u>
Harvesting, restoration, residue management	Removal of riparian vegetation
Forest management	Bank or shoreline modification/destabilization
Logging road construction/maintenance	Drainage/filling of wetlands
<u>Construction Runoff</u>	<u>Hydromodification</u>
Highway/road/bridge construction	Land development Channelization
	Dredging
<u>Other</u>	Dam construction
Golf Courses	Upstream impoundment
Erosion from derelict land	Flow regulation/modification
Atmospheric deposition	<u>Urban Runoff/Storm Sewers</u>
Waste storage/storage tank leaks	Nonindustrial
Highway maintenance and runoff	Industrial
Spills	Surface runoff
Natural sources	Other urban runoff
Internal nutrient cycling	Highway/road/bridge runoff
Sediment re-suspension	Sources outside jurisdiction or borders
Erosion and sedimentation	

Projects designed to assess and document the extent of beneficial use impairments associated with NPS pollution are a critical component of the NPS Program. Data collected through the assessment efforts are used to define statewide NPS pollution management needs as well as provide direction for ongoing and future educational initiatives. The value of assessment data is equally important for the local resource managers (e.g., soil conservation district supervisors, etc.), who use the data to identify specific resource management needs and set priorities for local watershed restoration work.

Assessment of water resource conditions and trends is accomplished at both the statewide and local level. On a statewide basis, data (e.g., water quality, biological, etc.) collected by state and local staff are compiled and interpreted on a biennial basis to develop the “Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads” (Integrated Report). The Integrated Report is the primary document used to identify the major NPS pollution management issues in the state as well as provide direction for targeting more intense monitoring efforts at the local level. The local monitoring efforts, which are generally coordinated through soil conservation districts or water resource boards, are initiated to further define the sources and causes of NPS pollutants impairing uses of specific waterbodies. All data collected through the NPS Program is used to: 1) identify



beneficial use impairments; 2) determine specific pollutant causes/sources; 3) set goals for landuse improvement and pollutant reduction; 4) establish waterbody priorities; 5) develop watershed implementation plans; and/or 6) measure benefits of applied BMP.

The Integrated Reports are the starting point for all watershed planning efforts initiated through the NPS Program. During the planning process, information in the Integrated Reports as well as input from local partners is used to establish state and local priorities; determine general resource assessment or management needs; and identify areas needing additional evaluation. Priority waterbodies identified through this process may include waterbodies identified in the Integrated Reports and/or un-assessed waterbodies identified by the local partners. Future Integrated Reports will also be used to help gauge NPS Program progress. The most current Integrated Reports and previous 305(b) Reports are posted on the Department's web site: [http://www.ndhealth.gov/WQ/SW/A\\_Publications.htm](http://www.ndhealth.gov/WQ/SW/A_Publications.htm).

Locally sponsored NPS assessment or TMDL development projects are the primary means used to determine watershed-specific priorities and management needs. These local assessments, commonly referred to as "development projects," provide the foundation for all watershed projects by identifying specific sources and causes of NPS pollutants impairing or threatening beneficial uses. This information is used to establish local waterbody priorities as well as to develop multi-year project implementation plans (PIP) to address the identified beneficial use impairments. When applicable, Department staff also coordinate with the local sponsors to utilize the assessment data to develop TMDLs and update future Integrated Reports.

Under the NPS Program, there are two sources of Section 319 financial support for assessment phase projects. Short term (i.e., 1-2 years) NPS assessment projects are supported with Section 319 funds available through the NPS Program's "Development Phase Fund." The Development Funds are unexpended Section 319 funds reallocated from NPS projects that were completed under budget. If the waterbody is listed on the TMDL List, alternative funding sources (e.g., 604(b); 104(b)(3); etc.) may also be used to support the assessment activities. For the multi-year or basin-wide NPS pollution assessments, the local sponsors participate in the annual Section 319 grant application process to secure Section 319 support (Base or Incremental Funding) for their projects. Regardless of the funding process, the match to the Section 319 funds is provided by the local project sponsors.

**Assessment Goal:** To document the degree of beneficial use support within state and local priority waterbodies and identify the sources and causes of any use impairments.

**Objective 1:** Maintain a statewide waterbody priority list based on the most current Integrated Report.

- Enter all NPS Program water quality and biological data into the Department's Sample Information Database (SID) to ensure it is readily available to Surface Water Program staff involved in the development of the future Integrated Reports (i.e. 305(b) Report and 303(d) List). This same data will also be transferred to the EPA WQX/STORET data warehouse.
- On a biennial basis, utilize the most current Integrated Report to "update" statewide assessment priorities by identifying additional/new waterbodies that have beneficial use impairments due to NPS pollution.

**Objective 2:** Develop an AnnAGNPS model for the watersheds of all waterbodies assessed by the NPS Program and its local partners.

- Coordinate with ND State University to modify the USGS Digital Elevation Models (DEM); soil GIS data layers and landuse GIS data layers to enable more efficient statewide application of the AnnAGNPS model.
- Complete in-house staff training on the development and use of the model and establish an AnnAGNPS technical support team composed of 2-3 Department staff.
- Develop an AnnAGNPS user manual and field data sheets for local and state staff involved in watershed assessment work.
- Coordinate with local project staff to develop an AnnAGNPS model for each assessed waterbody and provide technical support for the operation and maintenance of the model.

**Objective 3:** Coordinate with local partners to document the beneficial use conditions in 20 waterbodies (may consist of approximately 150 12 digit HU) and identify the sources and causes of NPS pollutants impairing or threatening any of the beneficial uses.

- Meet with the local resource managers to identify priority waterbodies, determine data needs (land use, water quality, biological, etc.) and establish schedules for assessing the local priority watershed.
- Develop watershed-specific Quality Assurance Project Plans (QAPP), as needed. The QAPP will also include a budget to identify specific costs, Section 319 funding needs and local match requirements. The QAPP and budget will be submitted to the NPS Program for review and approval. Section 319 funding will be awarded through 1-2 year contractual agreements between the Department and local sponsors.
- To the extent possible, maintain a Development Phase Fund under each active Section 319 grant to support local 1-2 year assessment projects. The Section 319 funds under the Development Phase Funds will be unexpended 319 funds reallocated from approved project completed under budget.
- Provide the necessary training and technical support to the sponsors and staff of local assessment projects to complete the monitoring tasks as scheduled in the approved QAPP.
- At the end of each project, compile and interpret all data to determine beneficial use conditions and identify NPS pollution sources and causes within the targeted watersheds. All data will be summarized and presented in an NPS Assessment Report for each project. [Note: The same data will also be used by Department staff to update the 303(d) list and/or develop TMDLs for targeted watersheds]

## **V. PRIORITIZATION**

To ensure efficient use of limited resources, all projects utilize some type of prioritization process to direct the delivery of financial and technical assistance. During state and local prioritization processes, various information sources such as the Integrated Reports, TMDL's and local NPS Assessment Reports are used to determine the types of projects needed as well as to help set schedules for project development and implementation. At the state level, the 303(d) lists in the Integrated Reports are used to identify waterbody priorities for the program. Locally, the Integrated Reports are also used in concert with any existing TMDL's or NPS Assessment Reports to further define priorities and set schedules for specific watershed assessment or restoration projects. An additional factor that is always considered when setting local priorities is the degree of local interest and support for the watershed project

For assessment level planning and implementation, the NPS Program utilizes a "process" rather than a "physical list" to identify the local waterbody priorities. Initially, the waterbodies included on the 303(d) list (i.e., TMDL List) are used as a starting point when planning local watershed assessment projects. During the local prioritization process, the waterbodies on the TMDL List are given a high priority status, although the sponsors do have the option to establish high priority rankings for un-assessed waterbodies. In most cases, these un-assessed waterbodies will only rank high if local interest is extremely high and the observed conditions indicate the waterbody has impaired uses. The end-products of the local prioritization processes are: 1) a local waterbody priority list; 2) well defined assessment needs per watershed; and 3) a schedule for the delivery of financial and technical assistance to conduct the assessments.

Upon completion of the local watershed assessments, the project sponsors also establish some type of priority process for implementing projects to address identified NPS pollution impacts. Generally, if significant local interest exists, this is a very straight forward process whereby the sponsors simply develop and implement watershed projects as the assessments are completed. However, occasionally, some high priority waterbodies may not proceed beyond the assessment phase due to several reasons (lack of landowner interest, lack of local funding, etc.). These assessed watersheds are generally targeted for increased information/education efforts to strengthen local support. As a third implementation option, if there are common sources and causes of NPS pollutants impairing beneficial uses in multiple watersheds, the sponsors could identify that "source" as a high priority issue. Animal feeding operations, degraded riparian areas, and tile drainage are examples of some high priority issues currently being addressed across the state. Projects based on a priority issue are generally designed to utilize BMP implementation and education to address the common NPS pollution priority in multiple watersheds or on a statewide level.

The final step in the NPS Program prioritization process is accomplished through the ND Nonpoint Source Pollution Task Force (Task Force). Projects seeking Section 319 funding through the annual grant award process are subject to review and approval by the Task Force. As part of this process, the Task Force members are asked to rank the proposed projects. These rankings are used by the NPS Program to help identify the highest priority projects and determine the level of Task Force support for each funding request. The Task Force rankings and feedback are also helpful for setting priorities for future NPS project development. Additional information on the Task Force review process and policies is provided in Appendices 1, 2 and 3.

**Prioritization Goal:** Ensure sufficient technical and financial assistance is targeted toward state and local projects with documented NPS pollution concerns and a high degree of local interest to restore beneficial uses impaired by NPS pollution.

**Objective 1:** Assist local project sponsors in identifying 20 priority waterbodies for assessment work and/or BMP implementation.

- Coordinate with local project advisory committees, resource managers, etc. to establish a waterbody prioritization process and criteria.
- Provide direction and assistance to local work groups and sponsors to collect any available information and obtain the local input needed to prioritize waterbodies.
- Assist local sponsors in setting the priority rankings for the targeted waterbodies and establish an implementation schedule based on the rankings.

**Objective 2:** Identify statewide NPS pollution management priority areas and management issues to provide direction for the implementation of statewide educational programs and/or local NPS pollution abatement efforts.

- Use the Integrated Reports to identify priority waterbodies in the state and provide direction for targeting technical and financial assistance to local partners involved in watershed planning.
- Define priority educational issues as they relate to beneficial use impairments and associated sources/causes of NPS pollution listed in the Integrated Reports. Information gained through public/sponsor feedback will also be used to identify educational priorities.

**Objective 3:** Determine NPS project funding priorities through the annual NPS Pollution Task Force project review process.

- Conduct draft project proposal reviews with the Task Force to determine project eligibility and establish relative priority rankings between the projects. The Task Force members will also provide written comments and recommendations on specific revisions needed to strengthen and/or improve the eligible draft project proposals. When applicable, the priority rankings will be used to determine funding limitations for the lowest ranked projects.
- Complete project revisions as suggested by the Task Force and resubmit the final project proposals to the Task Force and EPA for final review and funding approval.

## **VI. ASSISTANCE**

As a voluntary, incentive based program, successful development and implementation of any NPS pollution management project will be dependent on local support and involvement. Local participation during project development provides the opportunity to design project plans that will effectively address

watershed management goals and objectives associated with identified water quality and/or NPS pollution concerns. Although the size, type, and target audience of the local NPS projects may vary greatly, they all share the same basic objectives. These common objectives are: 1) increase public awareness of NPS pollution, 2) reduce/prevent the delivery of NPS pollutants to waters of the state, and 3) disseminate information on effective solutions to NPS pollution.

To assist local entities in meeting their project goals and objectives, the NPS Program provides financial and technical assistance for a variety of project activities including, educational events, BMP implementation, water quality monitoring, and farm unit planning. Projects focused on education are typically initiated to familiarize the general public or a specific audience (e.g., agricultural producers, etc.) with the types of NPS pollution in the state or local area, as well as the various methods available for NPS pollution control. In conjunction with the educational activities, many of the projects, particularly the watershed projects, also provide financial and technical assistance to promote the implementation of BMPs that reduce or prevent NPS pollution. Ultimately, the success of any project will be dependent on the sponsors' ability to educate local residents on NPS pollution issues and solutions and encourage the voluntary implementation of the appropriate corrective measures.

Financial and technical assistance provided by the NPS Program is typically used to support local staff, BMP implementation, biological and water quality sample collection and analysis, data interpretation, and public meetings or other I/E events. The Section 319 funding allocated to the local sponsors is provided at a 60% Section 319 and 40% local matching ratio. The local match, provided in the form of cash and/or in kind services, is derived from a number of local partners including, soil conservation districts, water resources boards, city councils, private foundations and trusts, landowners, wildlife groups, and agricultural companies. In most projects, these same groups will be represented on the local project advisory committee.

The Natural Resources Conservation Service (NRCS) is another major source of federal financial and technical assistance within many of the local NPS pollution projects. Technical assistance provided by NRCS generally includes staff time to assist with landuse or riparian assessments, public meetings, educational events and/or farm unit planning. Office space and some equipment are also typically provided to the local NPS projects by the NRCS. The USDA cost share programs are another important contribution from NRCS that helps support BMP implementation within the watershed project areas. The Environmental Quality Incentives Program (EQIP), in particular, has proven to be an effective program that NPS project sponsors use to help meet their BMP implementation goals and objectives.

Other agencies or organizations which provide financial and/or technical assistance to the local project sponsors include, NDSU Extension Service, County Commissions, Ducks Unlimited, ND Natural Resources Trust, N.D. Game and Fish Department, USGS, local wildlife clubs, and city councils. Table 2 lists the various organizations and groups which have sponsored NPS projects in North Dakota.

Table 2: Local groups and State agencies that have sponsored or co-sponsored NPS Projects

Soil Conservation Districts	State Water Commission	Lake Associations
Water Resource Districts	N.D Department of Agriculture	Grazing Associations
City Councils	RC&D Councils	Universities
ND Stockmen's Association	County Commissions	

Successful delivery of the NPS Program takes a significant amount of coordination and an even greater amount of financial and technical assistance. The specific type and amount of assistance needed by local projects is extremely variable and usually dependant on several factors. Some of the most common limiting factors that must be overcome within the projects include: 1) insufficient financial resources to match Section 319 funds; 2) limited opportunities to generate non-federal match; 3) lack of technical support or local expertise to identify BMP needs; and 4) limited understanding of the local NPS pollution impacts. The financial and technical assistance available through the NPS Program provides the means to address these limitations and ensure the local sponsors can implement the most effective NPS projects.

**Assistance Goal:** Provide local resource managers (e.g. SCDs, WRBs) financial and technical assistance to accurately evaluate beneficial use impairments resulting from NPS pollution and develop and implement projects that will restore and/or maintain beneficial uses impaired by NPS pollution.

**Objective 1:** Provide financial and technical assistance to local resource managers to develop and implement 20 waterbody assessment projects involving approximately 150 12 digit hydrologic units.

- Provide technical support to develop project-specific Quality Assurance Project Plans (QAPPs) and budgets. The QAPPs will describe monitoring and assessment goals, objectives, and tasks, sampling procedures, responsible parties, costs, milestones, and quality assurance/quality control requirements.
- Complete contractual agreements with the local sponsors to commit Section 319 funding for the implementation of the objectives and tasks listed in the approved QAPP. Development Phase Fund and/or Base Program funds will be the primary source for Section 319 funds allocated to NPS assessment projects. When possible, other funds (e.g., 604(b) funding, etc.) administered by the Department will be used to support the local NPS assessment projects.
- Provide Section 319 financial support to the Department's Chemistry and Microbiology laboratories to analyze the water quality, fecal coliform bacteria and E. coli samples collected by the local NPS assessment projects. Section 319 funding will also be provided to the local project sponsor to support contracted services employed to analyze macroinvertebrate and/or fish samples.
- Coordinate with local project staff to identify riparian and land management priorities in the targeted watersheds. The AnnAGNPS model and Rapid Geomorphic Assessment method are two tools that will be used to identify land use and riparian management priorities.
- Upon completion of the assessment projects, interpret the assessment data and develop NPS Assessment Reports and/or TMDL's identifying beneficial use impairments, sources and causes of NPS pollution, and watershed specific pollutant reduction targets.

**Objective 2:** Provide financial and technical assistance to develop and implement 35 locally sponsored NPS projects.

- Deliver technical support to local sponsors to plan and develop 35 project implementation plans (PIP) for local educational, watershed, and/or support projects seeking Section 319 financial support. Descriptions of the project types are provided in Section II.
- Organize and conduct the annual NPS Pollution Task Force reviews of the draft and final PIPs requesting Section 319 funding (Appendices 1-3). These reviews typically occur in September and November.
- Submit approved PIPs and Section 319 grant applications to Region VIII EPA for review and final approval.
- Develop 1-5 year contractual agreements with the local sponsors responsible for the administration of the Section 319 funds allocated to the approved projects.
- Provide technical support and training to local sponsors and staff on the implementation and management of the NPS project. Also provide training on the management of the NPS Program databases used to track project costs and BMP implementation.

**Objective 3:** Obtain alternative sources of technical and financial assistance to help support local project planning and implementation efforts as well as reduce the local match responsibilities associated with Section 319 funding.

- Disseminate information on other federal and state sources of funding and assist sponsors with the development of applications, as needed.
- Through the biennial legislative process, continue to pursue the establishment of a permanent funding commitment under the Department's overall budget to support local NPS projects.
- Maintain and/or expand the current level of funding (i.e., \$200,000) provided through the State Water Commission Trust Fund to support local engineering costs associated with the development of BMP construction designs. Other non-federal funding sources will also be pursued, whenever possible, to support local match responsibilities associated with Section 319 funding.
- Maintain annual SRF funding commitments (~\$ 500,000/year) under the SRF intended use plan to support the Livestock Waste Management System SRF Loan Program. The SRF loan funds available through the program are used to support costs incurred by livestock producers installing manure management systems. Generally, the SRF funds help meet the producer's match responsibilities associated with Section 319 and/or EQIP cost share assistance.
- Maintain and expand partnerships with various commodity groups (e.g. ND Stockman's Association, ND Wheat Growers), state agencies (NDG&F, Extension Service, etc.) and other private groups or organizations (e.g. Ducks Unlimited, Certified Crop Advisors) to increase opportunities for alternative sources of financial and technical assistance that could be available to local NPS pollution projects.

## VII. COORDINATION

With limited resources at the state and local level, effective delivery of the NPS Program requires a significant amount of coordination with other federal, state, and local agencies as well as private groups and landowners/producers. The primary means for coordinating statewide efforts is through direct interaction with resource management partners (e.g., NRCS, NDASCD, Extension Service, etc.) as well as through the North Dakota NPS Pollution Task Force (Task Force). Local coordination is primarily accomplished through direct contacts and participation on the Local Project Advisory Committees.

The Task Force serves as an advisory board to oversee the implementation of the North Dakota NPS Pollution Management Program. One of the main functions of this multi-agency board is to provide input to help ensure a balanced program is implemented in North Dakota. Through Task Force meetings, the members are given the opportunity to review all locally sponsored NPS projects seeking Section 319 financial support. Task Force discussions during the annual project reviews serve as a catalyst for creating more coordination between the agencies or organizations represented on the Task Force and the local NPS project sponsors. These meetings also offer the opportunity to discuss various interagency programs (e.g. USDA Programs, assessment activities) focused on resource management across the state. The Task Force has 32 members representing a variety of private organizations, as well as local, state and federal agencies (Table 3). The mission statement for the NPS Task Force reads as follows:

“The North Dakota Nonpoint Source Pollution Task Force’s mission is to provide leadership to local governments, private organizations, and the people of North Dakota in the protection of the state’s surface and ground water resources where they are threatened or impaired due to nonpoint source pollution.”

Table 3: Nonpoint Source Pollution Task Force Members

### Public/Private Organizations

Environmental and Energy Research Center	ND Association of RC&D Councils
ND Association of Soil Conservation Districts	ND Farm Bureau
ND Farmers Union	ND Grain Growers Association
ND Grazing Associations	ND Pork Producers
ND Rural Water Systems Association	ND Natural Resources Trust
ND Stockmen’s Association	ND Wildlife Federation
Red River Basin Commission	

### State Agencies

ND Department of Agriculture	ND Department of Health
ND Game and Fish Department	ND Geological Survey
ND Parks and Recreation Department	NDSU Agricultural Extension Service
NDSU Ag Extension Service--Soil Conservation Committee	ND State Water Commission
	ND Forest Service

### Federal Agencies

USDA Agricultural Research Service	USDA Farm Services Agency
------------------------------------	---------------------------



USDA Natural Resource Conservation Service  
USDA Rural Development  
USDI Bureau of Reclamation  
USDI Geological Survey

USDA Forest Service  
USDI Bureau of Land Management  
USDI Fish & Wildlife Service  
US EPA Region VIII

The close partnership between the NPS Program and NRCS is very beneficial for all the state's NPS pollution management efforts. Most Section 319 watershed projects utilize various USDA Programs (e.g. EQIP, EWP, CRP) to expand the amount of financial resources available for BMP planning and implementation. When possible, the NRCS also provides training and technical support to local NPS project staff to assist them in conducting riparian assessments, developing conservation plans, evaluating range conditions, and planning or designing manure management systems. Most local NPS watershed project coordinators are also co-located in a NRCS field office. By coordinating multiple funding sources and co-locating staff with NRCS, the local NPS projects are able to implement more BMP and greatly enhance the overall effectiveness of their project's NPS pollution abatement efforts. Given the benefits of the USDA/NPS Program partnership, all NPS project sponsors are encouraged to utilize the USDA programs, when possible, to compliment the Section 319 funding provided through the NPS Program.

The NDSU Extension Service (Extension Service) is another major partner of the NPS Program, particularly for state and local educational activities. At the state level, the Extension Service has taken the lead role in delivering an educational program focused on improving livestock manure management. This program, not only assists the NPS Program in educating livestock producers, but it also serves as a technical support program for local NPS project staff providing planning assistance focused on manure utilization. In addition to this program, the Extension Service, in cooperation with the USGS, has also initiated the ND Discovery Farms Program. Through this multi-year program, the NPS Program, Extension Service and cooperating producers will be able to evaluate and quantify the effectiveness of various BMP for addressing NPS pollution. Over the long term, the information collected through the Discovery Farm Program will be used to establish new or updated criteria for the installation and management of the BMP proven to be successful. County Extension Agents also continue to be involved in the planning and delivery of many of the educational events sponsored by the local NPS projects.

Coordination at the local level for development and implementation of a project is primarily accomplished through the formation of Project Advisory Committees (PAC). The PACs, in cooperation with lead project sponsor, are responsible for the oversight and management of the local NPS pollution management projects. Their responsibilities generally include providing input and recommendations regarding: 1) PIP development; 2) project staff management; 3) project administration; 4) project progress; 5) delivery of technical and financial assistance to cooperating landowners and producers; and 6) local educational events. Membership on the Advisory Committee is dependent on a number of factors, including the type of NPS pollution issues being addressed and size of the project area. However, the "core" members on the PAC generally include soil conservation districts, county Extension agents, NRCS; and water resource boards.

Given the agricultural focus of most projects, Soil Conservation Districts (SCD) are generally the lead sponsor for most (approximately 70 %) of the local NPS projects. The SCD's provide the local leadership that is necessary to implement and manage projects as well as the "familiar face" to encourage greater producer/landowner involvement. The SCD's long-standing partnership with NRCS also strengthens the

coordination of cost share funds provided through the EQIP and Section 319 Program. Other local or regional organizations that have been lead NPS project sponsors include universities; state agencies, lake associations, resource conservation and development councils, and water resource boards. To maintain a coordinated NPS pollution management effort with the SCD's and all other partners, the NPS Program has established the following coordination goal and objectives.

**Coordination Goal:** Increase the effectiveness of NPS pollution management in the state by coordinating project development and implementation efforts with local, state, and federal agencies and private organizations involved with natural resource management in the state.

**Objective 1:** Establish local partnerships to coordinate the prioritization, development, and implementation of all NPS pollution management projects initiated in the state.

- Assist local sponsorships with formation of Project Advisory Committees to help them prioritize, develop, and implement NPS pollution management projects.
- Participate on Project Advisory Committees, when possible.

**Objective 2:** Maintain partnerships and communication with the appropriate local, state, and federal agencies, and private organizations to coordinate resources and ensure other natural resource management efforts are consistent with the state's NPS pollution management goals.

- Conduct semiannual Task Force meetings to obtain input and recommendations on local NPS projects seeking Section 319 funding as well as to disseminate information on NPS Program activities and progress.
- Participate in various interagency meetings (NRCS Technical Committee, Extension Service Advisory Committee, NDASCD annual meetings, etc.) focused on the delivery of other state and federal natural resource management programs that directly or indirectly address NPS pollution impairments to the state's water resources.
- Coordinate with other Department staff to provide input regarding any NPS pollution management concerns that need to be raised during consistency reviews of federal projects and programs on public lands.

## **VIII. INFORMATION AND EDUCATION**

Delivery of a balanced information and education (I/E) program throughout the state is a critical component of the NPS Pollution Management Program. While watershed projects are effective at abating known sources and causes of NPS pollution, the state and local I/E projects are the primary means for raising an awareness of NPS pollution issues in the state as well as gaining increased participation in NPS pollution management efforts. Although the size and target audience of the educational projects may vary, cumulatively, the state and local I/E projects form the delivery network for the NPS Program's statewide educational program.

The overall intent of the statewide NPS education program is to expand and coordinate NPS pollution based education in the state. These educational efforts may include statewide or local NPS education projects that target specific audiences or those projects that deliver educational offerings addressing specific NPS pollution management issues. Projects focused on resource management training, problem solving and solution identification will be considered priority educational efforts under the statewide program. Educational activities supported by the local watershed projects will also be an important part of the overall statewide educational program.

Given the importance of an informed public, up to 20% of the state's annual Section 319 allocation can be used to support state and local projects focused on the dissemination of NPS pollution information. These educational initiatives may utilize a variety of media and methods to "get-the-word-out," including newsletters, workshops, BMP demonstrations, tours, fact sheets, radio ads, and videos. Educational projects providing technical support and training to NPS watershed project coordinators and individual producers/landowners will also be recognized as critical statewide education efforts. The level of Section 319 financial support for all educational projects will be determined on a case-by-case basis through the annual NPS Task Force project reviews.

**Information and Education Goal:** Increase general awareness and understanding of solutions for restoring water quality and beneficial uses impaired by NPS pollution and strengthen public support for the voluntary implementation of effective NPS pollution management measures.

**Objective 1:** Maintain delivery of a balanced statewide I/E Program that addresses priority NPS pollution issues in the state and is targeted toward all age groups.

- Provide financial and technical support for the implementation of existing youth education programs (i.e., TREES, ECO ED, Envirothon, and Project WET); new youth education initiatives; as well as other I/E projects targeting audiences such as agricultural producers, SCD staff, project coordinators, and other groups or individuals involved in resource management.
- When necessary, participate in state and local I/E programs and conduct periodic reviews to ensure all I/E programs remain current and focused on NPS pollution education.
- Assist with the development of new statewide or local educational initiatives focused on priority NPS pollution issues in the state.
- Maintain an in-house library of various NPS pollution/water quality I/E materials developed by state, local, federal, and private organizations and make the information available to program partners and resource managers.
- Maintain the NPS Program web site: [http://www.ndhealth.gov/WQ/sw/Z1\\_NPS/default.htm](http://www.ndhealth.gov/WQ/sw/Z1_NPS/default.htm).

**Objective 2:** Strengthen the abilities of local resource managers and agricultural producers to recognize and address beneficial use impairments associated with NPS pollution.

- Coordinate with NDSU Extension Services, NDASCD, SSCC, NRCS and others to organize and conduct workshops and/or training sessions focusing on NPS pollution management, water quality/NPS pollution assessment, and project development. The primary target audience will be local resource managers (e.g. SCD technicians & supervisors, County Agents, WRB supervisors, etc.) and NRCS field office staff.
- Establish on-line curriculum and course work (through the university system) that is focused on NPS pollution management and water quality. This on-line service will be used to educate and train new and current NPS project coordinators and other individuals involved in the implementation of watershed projects supported through the NPS Program.

**Objective 3:** Document the degree of public awareness and understanding of NPS pollution issues in the state to determine the effectiveness of past I/E efforts and identify steps needed to strengthen future educational programs.

- Develop and implement a statewide process (e.g., statewide survey, etc.) to evaluate the general public's current understanding and awareness of NPS pollution issues and concerns in the state.
- Utilize information gained to update/revise the focus of statewide and local educational efforts for the next 3-5 years.

## **IX. PROGRAM EVALUATION**

Currently, a number of evaluation methods are being used to monitor and document the restoration and protection of the beneficial uses of surface and ground water resources. The specific methods used are variable and dependent on factors such as project size, pollutant reduction goals, planned BMP, and type of use impairments. Monitoring methods typically used may include photo-monitoring, computer modeling, BMP tracking, and/or water quality monitoring. The QAPP developed for each project provides the specific monitoring details including the goals, objectives, target parameters, sampling frequencies, monitoring methods, etc. Ultimately, all data collected will be used to gauge the success of state and local projects by documenting the degree of beneficial use improvements and/or the number of impaired waterbodies that have been restored and protected for future generations.

The primary means used for disseminating information on the progress of the NPS Program are the biennial Integrated Reports, final project reports, and annual project reports. The Integrated Reports provide the opportunity to evaluate statewide needs on a biennial basis as well as gauge progress (e.g., through de-listings) over the long term. For the local initiatives, the final and annual project reports provide valuable information on such factors as the amounts and types of applied BMP; trends in targeted water quality parameters; estimated pollutant load reductions; landowner participation; etc. All this information is used to evaluate short and long term success of the local watershed projects. The water quality trends of many of the state's aquifers are also monitored by NDDH staff on an annual basis. This information, which is compiled in five-year reports, is used to evaluate water quality trends in the state's aquifers.

Task Force reviews of the NPS Management Plan every five years will be the main process used to evaluate the overall progress and future needs of the NPS Program. These reviews will focus on the outputs associated with the various goals and objectives identified in the current Management Plan. In conjunction with the programmatic review, the Task Force is also given the opportunity to provide recommendations on adjustments to the resource management priorities of the NPS Program. Feedback from this part of the review process is used to determine if the NPS Management Program Plan needs to be revised to address potential NPS pollution threats associated with new or changing resource management practices. While it is difficult to predict exactly what new NPS pollution threats or resource management issues may arise, it is very likely a majority of the state's future NPS pollution management efforts will continue to be focused on agriculture. Current trends in the agricultural industry indicate future agricultural NPS pollution threats may be associated with larger farming operations, new crop rotations and types, tile drainage, expiration of CRP contracts, and/or concentrated livestock feeding areas. Non-agricultural resource concerns that may also be recognized as localized priorities include: 1) energy development; 2) management of small ranchettes; 3) saline soils; 4) affects of the emerald ash borer on riparian forests; and 5) failed septic systems.

All locally sponsored NPS projects will be evaluated on a yearly basis through the required annual project reports. Each project will also be required to submit a final project report to document progress toward the goals and objectives described in the approved PIP. For the local watershed projects, the final reports will also include a water quality summary report to describe progress toward the project's beneficial use and/or water quality improvement goals. These data summaries will be based on actual in-stream or in-lake water quality data and/or the outputs generated by computer models (e.g., STEPL, AnnAGNPS, etc.). The Animal Feedlot Runoff Risk Index Worksheet (AFRRIW) will also be used in some watershed to estimate nutrient load reductions associated with manure management systems. All annual and final project reports will be entered in the Grants Reporting and Tracking System (GRTS) to update EPA on the progress of the local projects as well as the NPS Program. The data collected within the NPS project areas will also be available to EPA Region VIII to address reporting requirements associated with EPA performance measures and strategies (e.g., SP-12, WQ-10, etc.).

**Evaluation Goal:** Document the effectiveness of the NPS Program in delivering a balanced program that assists state and local partners to identify and address sources and causes of NPS pollution impairing or threatening the beneficial uses of waters of the state.

**Objective 1:** Review the Management Plan every five years and update the Plan, as needed, to ensure the program will effectively address current and future NPS pollution impacts to the water quality and beneficial uses of the state's water resources.

- Organize and conduct Task Force reviews of the Management Program Plan every five years.
- Participate on other state/federal/local resource management boards or committees and coordinate with the NPS Task Force to review and discuss new and potential water quality/NPS pollution concerns that need to be addressed in the state
- Solicit feedback from local project sponsors through annual and final project reports regarding delivery of NPS Program financial assistance and technical support.

- Evaluate recommendations and feedback from the Task Force and program partners and update the NPS Pollution Management Program Plan, as needed. Formal reviews and updates will be scheduled to occur every five years. However, during the interim, there may be minor updates to the Management Plan based on feedback from local project sponsor and other partners.

**Objective 2:** Evaluate and document local NPS project progress toward approved PIP goals.

- Maintain a reporting schedule for local NPS projects that includes annual progress reports due October 1<sup>st</sup> and final reports due on the ending date of the project's contractual agreement.
- Upon completion of the watershed projects, interpret and summarize all data (e.g., water quality, biological, land use, etc.) collected during the project to evaluate progress in meeting project-specific pollutant reductions goals and objectives. The data summaries will be included in the final project reports.
- Utilize models such as STEPL and AnnAGNPS or the Animal Feedlot Runoff Risk Index Worksheet (AFRRIW) to report on estimated annual pollutant load reductions associated with applied BMP within the watershed project areas.
- Complete annual updates to the GRTS

**Objective 3:** Document long-term benefits of NPS pollution control and/or water quality improvement practices applied within the Section 319 watershed project areas.

- When feasible, coordinate with previous project sponsors to monitor and evaluate post-project water quality trends and beneficial uses conditions within completed watershed project areas. Particular emphasis will be placed on targeting post-project monitoring toward watersheds that have been recognized as candidate watersheds for meeting current EPA performance measures (e.g., SP-12, WQ-10, etc.)

**Objective 4** Evaluate the effectiveness and feasibility of alternative BMP for addressing priority NPS pollution management issues in the state.

- Coordinate with NDSU Extension Service, USGS and cooperating agricultural producers to implement the ND Discovery Farms Program to collect data needed to accurately quantify and evaluate the effectiveness of innovative and new BMP for reducing or preventing NPS pollution.
- Assist local/state/ federal agencies and organizations involved in resource management to establish demonstrations and programs designed to evaluate the effectiveness and feasibility of BMP at controlling NPS pollutions.
- Update the NPS Program BMP Cost Share Guidelines, as needed, to include guidelines and policies for new BMP proven to be effective.

## **Appendix 1**

### **NPS Pollution Management Program Task Force Section 319 Project Proposal Review Process and Policies**

## **ND NPS Pollution Task Force Section 319 Project Proposal Review Process (8/09)**

### **Approximate Schedule for the Annual Review Process**

**August 1<sup>st</sup>:** Draft project proposals due. All proposals must be submitted to the ND Department of Health (NDDH) by this due date. Draft project proposals will be forwarded to the Task Force members by August 15<sup>th</sup>.

**September 15<sup>th</sup>:** The NPS Task Force will review all draft project proposals by September 15<sup>th</sup> of each year. Local project sponsors will be invited to the Task Force meeting to present their project and answer any questions. If necessary, the Task Force meeting may be scheduled over two days to allow adequate time for sponsor presentations and Task Force questions, discussion, and project ranking/scoring.

**September - October:** Based on Task Force input, the NDDH will identify the draft project proposals that will be eligible for final review in November/December and forward Task Force comments to the appropriate project sponsors. The NDDH will also provide recommended Section 319 funding levels to the sponsors of the eligible projects. The project sponsors will finalize their project proposals to address the Task Force and NDDH comments and recommendations.

**November 1<sup>st</sup>:** Final project proposals due. All final proposals must be submitted to the NDDH by the due date. The final project proposals and NDDH funding recommendations for the projects will be forwarded to the Task Force members by November 15<sup>th</sup>.

**December 15<sup>th</sup>:** The NPS Task Force will review the NDDH funding recommendations and final project proposals by December 15<sup>th</sup> of each year. The NDDH will request Task Force approval of the funding recommendations and final project implementation plans. The Task Force will also have the option to recommend revisions to any of the approved projects.

**January:** The NDDH will forward the approved final project implementation plans to EPA in January of each year.

**January - March:** EPA will review the final project implementation plans. The Section 319 Grant Application will be submitted to EPA by the NDDH. The submittal date for the Grant Application will be dependent on when the fiscal year Section 319 budget is provided to EPA.

**March/April:** EPA will issue the Section 319 Grant Award and the NDDH will develop the appropriate agreements (i.e., Notice of Grant Award and Federal Requirements Form) to complete the allocation of the Section 319 funding to the local sponsors/projects.



## **A. Draft Project Proposal Review**

The draft project proposal review will include two basic steps. The first step of the process will focus on project presentations. The sponsors of all the proposed projects will be invited to the Task Force meeting to present their project and answer any questions from the Task Force members. These presentations will be approximately 30 minutes, including a question and answer period. The second step will involve an open Task Force discussion on the eligibility, strengths, weaknesses, goals/objectives, etc. of each draft proposal. The draft project proposal review process should be completed by September 15<sup>th</sup> of each year.

When necessary, the draft review process may be conducted over a two day period to allow sufficient time for presentations and discussions. To the extent possible, project presentations will be scheduled so that a sponsor's presentation and the Task Force discussions on their project proposal will occur on the same day. This will allow all sponsors the opportunity to attend the Task Force discussions following their presentations. During the Task Force discussions, the local sponsors will only be allowed to respond to direct questions on their project. Representatives for Task Force member organizations sponsoring a draft project that is under review will also be limited to responses to direct questions on their organization's project.

Task Force members will use the appropriate Draft Project Proposal Prioritization Worksheet (Appendix 2) to evaluate each project proposal. Project evaluations will focus on the relationship between the project's goal, identified water quality/beneficial use impairments; and NPS pollution sources/causes. Other components of the draft proposals that will be evaluated include the degree of local support, partnerships, coordination, evaluation methods, and costs. Only one "set" of project evaluation worksheets can be submitted per Task Force member organization. All completed evaluation worksheets must be submitted to the NDDH approximately two weeks after the draft project review meeting. The specific due date will be determined by the Task Force at the draft review meeting.

If a project is requesting continuation funding, a summary of accomplishments made with funds previously awarded should be provided with the draft proposal. The Task Force members will need to take these past accomplishments into account when reviewing the draft continuation proposal. A review of the progress of all continuation projects should be part of the Task Force discussions following the presentations. When completing the evaluation worksheet for a continuation project, the Task Force members should note in the Comments section if they are satisfied with the past accomplishments. The degree of progress should be a major factor to consider when assigning a final priority ranking for the project.

Project-specific funding levels will not be decided during the draft proposal review process. Instead, the Task Force will use the attached evaluation worksheets to provide funding recommendations to the NDDH. These recommendations will indicate a general funding level (i.e., full, partial, or no) relative to what was requested by the sponsors. The Task Force will also provide written comments on specific revisions needed in the proposed project budgets. These recommendations and comments will serve as guidelines for the NDDH to assist local sponsors

with the development of the budgets for the final project implementation plans (PIP). The NDDH will coordinate with the local sponsors to make the necessary budget revisions to ensure the cumulative Section 319 funding request for the eligible projects is “close” to the anticipated Section 319 allocation for the fiscal year.

The priority rankings, funding recommendations, and Task Force comments provided on the evaluation worksheets will be compiled and used by the NDDH to identify specific projects that will be eligible to resubmit a final project implementation plan (PIP) in November. A project will be considered eligible to resubmit a final PIP if: 1) more than 50% of the Task Force rankings on the worksheets indicate a “medium to high” priority rating; and 2) some level of funding is recommended on a majority of the worksheets. In the event sufficient Section 319 funding is expected to be available to support all the draft project proposals, the Task Force can recommend that all the draft project proposals be eligible to resubmit a final PIP. Such a recommendation would negate the need for the NDDH to determine the specific eligibility of each project.

All Task Force comments on the draft project proposals will be forwarded to the local sponsors to assist with the development of the final PIP’s.

## **B. Final Project Proposal Review and Approval**

In preparation for the final review, the NDDH will coordinate with the local sponsors to establish specific Section 319 funding levels for each eligible project. During this interim period, the sponsors will also revise the project implementation plans (PIP) to address Task Force comments provided through the draft review process. The Task Force will review the NDDH funding recommendations and the revised PIPs to determine if previous Task Force comments have been adequately addressed. The final project review will also evaluate each project’s consistency with the goals and objectives of the NPS Pollution Management Program. The NPS Task Force will complete the review of the final project proposals by December 15<sup>th</sup> of each year.

The final review process will focus on the evaluation of the “programmatic” benefits of each project. Consideration will be given to such criteria as: 1) new project locations; 2) potential for statewide application; 3) innovativeness; 4) transferability of information; 5) benefits to ongoing projects; and 6) cost effectiveness. Using these criteria, the Task Force will have the option to assign priority rankings to the final PIPs. These priority rankings will only be necessary if the cumulative funding request for the projects exceeds the anticipated Section 319 allocation for that fiscal year. Under such situations, the Task Force will use the Final Project Proposal Evaluation Worksheet (Appendix 3) to establish project-specific rankings. These priority rankings and any specific budget recommendations will be used by the NDDH to make the necessary budget adjustments (per project) if the fiscal year Section 319 allocation is insufficient to fully support the original funding requests for all the approved projects.

### **C. Project Evaluation Worksheets**

The appropriate Draft Project Proposal Prioritization Worksheets (Appendix 2) will be provided to the Task Force members during the draft project proposal review process. These worksheets should be completed for each project proposal to evaluate and document project appropriateness and eligibility. The completed worksheets must be provided to the NDDH by the deadline set at the Task Force meeting.

During the final project proposal review process, Task Force members will be provided the Final Project Proposal Evaluation Worksheet (Appendix 3). This worksheet lists several programmatic criteria to consider when evaluating the overall benefits of the projects. When it is anticipated insufficient Section 319 funds available, the worksheet may also be used to assign relative priority rankings to each project. In such cases, projects offering the greatest programmatic benefits should be assigned the highest priority ranking. If the priority rankings are needed, the complete evaluation worksheets must be submitted to the NDDH immediately following the final project proposal review meeting.

### **D. Task Force Voting Policy**

When project approvals or other issues are determined by casting a vote, Task Force member organizations will be limited to one vote per agency or organization. In addition, when evaluating project proposals only one “set” of evaluation worksheets can be submitted per agency or organization.

Organizations and agencies represented on the Task Force can request Section 319 funding for eligible projects they are sponsoring. Under such circumstances, the Task Force representative for that organization can evaluate or vote on other projects participating in the review process, but they must abstain from evaluating or voting on their own project proposal. Also, during the project proposal discussions, the Task Force representative of that organization will not be allowed to promote their project and will only be allowed to respond to direct questions on their organization’s project.

### **E. General Guidelines for the Distribution of Section 319 Funding**

Up to 20% of the state’s Section 319 funding may be utilized to support NPS Program staff and/or local NPS Assessment or TMDL Development projects. The NDDH, in cooperation with the state’s Region VIII EPA Project Officer, will be responsible for the review and approval of the NPS Program Staffing and Support Workplans as well as the Quality Assurance Project Plans (QAPP) for NPS Assessment or TMDL Development projects. The Section 319 funds that are not committed for NPS Program staffing or local NPS Assessment/TMDL projects will be available for allocation to locally sponsored NPS projects involved in the Task Force project proposal review process.

Through the annual review process, the Task Force will be given the opportunity to provide comments and recommendations on all the locally sponsored projects seeking Section 319 financial support. As a general guideline, a majority (80% or more) of the state's Section 319 funding should be allocated to locally sponsored projects addressing NPS pollution. This includes all the projects that can be defined as Information/Education Projects; Support Projects; or Watershed Projects. Project category definitions are provided in Section II. In addition, to maintain an even greater "on-the-ground emphasis," over sixty percent (60%) of the available Section 319 funding should be awarded to projects that directly address impaired beneficial uses through the implementation of best management practices (BMP). Projects with this type of focus are those included in the Watershed Project or Support Project categories. However, to strengthen and expand public support for these on-the-ground efforts, up to 20%, of the state's Section 319 funding should be committed to the Information /Education projects focused on public education.

## **Appendix 2**

### **Prioritization Worksheets for Draft Project Proposals**

## Information & Education Project Prioritization Worksheet

Project Name: \_\_\_\_\_

<u>Statement of Need</u>	<u>Score</u>
1) Focused primarily on water quality issues associated with NPS pollution. 0-20 pts.	_____
2) Relationship to the NPS Program's I/E Strategy is described and consistent with specific educational goals and priorities. 0-10 pts.	_____
3) Strengthens and/or compliments other local or statewide NPS/water quality educational efforts. 0-10 pts.	_____
4) Primary target audience is appropriate. 0-10 pts.	_____
5) Potential number of participants is high. 0-5 pts.	_____
6) Educational material/message has application beyond the scope of the project. 0-5 pts.	_____
<b>SUBTOTAL</b>	_____

<u>Goals, Objectives, and Tasks</u>	<u>Score</u>
1) Goal is consistent with state or local NPS educational priorities described in Statement of Need section. 0-10 pts.	_____
2) Measurable outputs or products are provided for the Objectives and Tasks 0-10 pts.	_____
3) Type and number of planned educational activities are appropriate. 0-10 pts	_____
4) Level of technical assistance is appropriate for size and scope of the project. 0-5 pts	_____
5) Timing and delivery methods for educational events/message are appropriate. 0-5pts.	_____
<b>SUBTOTAL</b>	_____

<u>Coordination</u>	<u>Score</u>
1) Demonstrates a willingness and ability to coordinate with the appropriate local/state/federal programs or organizations. 0-5 pts.	_____
2) Avoids duplicating educational efforts/activities of similar projects. 0-5 pts.	_____
<b>SUBTOTAL</b>	_____



## Support Project Prioritization Worksheet

Project Name: \_\_\_\_\_

### Statement of Need

#### Score

- |  |       |
|--|-------|
| 1) Provides services or support that will be targeted toward a local or statewide NPS pollution management priority. 0-10 pts.                                   | _____ |
| 2) Size of the project area is appropriate for the type of services being provided and the project budget. 0-5 pts.  | _____ |
| 3) Directly or indirectly addresses NPS pollution sources and causes impacting beneficial uses (e.g., recreation, aquatic life, drinking water, etc.). 0-10 pts. | _____ |
| 4) Services and/or support will enable local or statewide NPS pollution management projects to more effectively address NPS pollution priorities. 0-10 pts.      | _____ |
| 5) Process established to ensure timely and efficient delivery of services or support. 0-5 pts.  | _____ |
| 6) Services or support will be targeted toward (Select only one):  |       |
| (a) Waterbodies with approved TMDL's or active 319 watersheds - 20 pts.  |       |
| (b) 303(d) listed waterbodies or specific NPS pollution sources/causes - 15 pts.   |       |
| (c) A specific geographic area and/or river basin(s) - 10 pts.   |       |
| (d) Any watershed/statewide - 5 pts.   | _____ |
| <b>SUBTOTAL</b>  | _____ |

### Goals, Objectives, and Tasks

#### Score

- |  |       |
|--|-------|
| 1) Project goal is consistent with local or statewide needs for support or services. 0-10 pts.                           | _____ |
| 2) Objective and Task outputs or products are measurable and appropriate for evaluating progress/success. 0-10 pts.      | _____ |
| 3) Amount of services or support is adequate for addressing identified needs. 0-10 pts.                                  | _____ |
| 4) Level of technical assistance is appropriate for size and scope of the project. 0-5 pts                               | _____ |
| 5) Sufficient public outreach and educational events are scheduled and targeted toward the appropriate audience. 0-5pts. | _____ |
| <b>SUBTOTAL</b>  | _____ |



**Coordination****Score**

1) Demonstrates a willingness and ability to coordinate with the appropriate local/state/federal programs or organizations. 0-5 pts.

\_\_\_\_\_

2) Avoids duplication of services or support provided by other projects/programs. 0-5 pts.

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**Monitoring and Evaluation****Score**

1) Evaluation measures are sufficient and appropriately scheduled. 0-5 pts

\_\_\_\_\_

2) Information collected will be appropriate for gauging progress toward project goals and objectives. 0-5 pts.

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**Budget****Score**

1) Costs are well defined, reasonable and appropriate for the identified goals. 0-5 pts

\_\_\_\_\_

2) Sufficient non-federal local/state support is budgeted to match the requested Section 319 funding. [No - 0 pts.] or [Yes - 10 pts.].

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**TOTAL SCORE** \_\_\_\_\_

**Funding Recommendation****Priority Ranking**

- \_\_\_\_\_ Fully Fund  
\_\_\_\_\_ Partially Fund at more than 50% of requested amount.  
\_\_\_\_\_ Partially Fund at less than 50% of requested amount  
\_\_\_\_\_ Do not Fund

- \_\_\_\_\_ High Priority (90-135 points)  
\_\_\_\_\_ Medium Priority (45-89 points)  
\_\_\_\_\_ Low Priority (< 45 points)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Watershed Project Prioritization Worksheet

**Project Name:** \_\_\_\_\_

### **Statement of Need**

### **Score**

- 1) Specific waterbody and watershed is targeted. 0-5 pts. \_\_\_\_\_
  - 2) The size of the watershed is manageable for the amount and type of resources committed to the project. 0-5 pts. \_\_\_\_\_
  - 3) Impaired or threatened beneficial uses (e.g., recreation, aquatic life, drinking water, etc.) are identified and described. 0-10 pts. \_\_\_\_\_
  - 4) Specific NPS pollutants and land use activities impairing or threatening beneficial uses are identified. 0-10 pts. \_\_\_\_\_
  - 5) Priority areas and management needs are identified and appropriate. 0-10 pts. \_\_\_\_\_
  - 6) The project will address and/or benefit (Only select one):
    - (a) A waterbody with an approved TMDL - 20 pts.
    - (b) A 303(d) listed waterbody / draft TMDL - 15 pts.
    - (c) An adjacent/downstream waterbody with an approved TMDL or on the 303(d) list. - 10 pts.
    - (d) An assessed waterbody not on the 303(d) list, but assessment data has identified beneficial use impairments or threat due to NPS pollution - 5 pts.
    - (e) A waterbody that has not been assessed. - 0 pts.\_\_\_\_\_
- SUBTOTAL** \_\_\_\_\_

### **Goals, Objectives, and Tasks**

### **Score**

- 1) The project goal is focused on identified beneficial uses impairments or threats. 0-10 pts. \_\_\_\_\_
  - 2) Objectives and tasks include realistic and measurable reduction targets for the sources and causes of NPS pollutants impairing or threatening beneficial uses 0-10 pts. \_\_\_\_\_
  - 3) Types and amount of planned best management practices (BMP) and other corrective measures are adequate and appropriate. 0-10 pts. \_\_\_\_\_
  - 4) Level and type of technical assistance is appropriate for the size and scope of the project. 0-5 pts. \_\_\_\_\_
  - 5) Sufficient public education events are scheduled and targeted toward the appropriate audience. 0-5pts. \_\_\_\_\_
- SUBTOTAL** \_\_\_\_\_

**Coordination****Score**

1) Demonstrates willingness and ability to coordinate with the appropriate local/state/federal programs or organizations. 0-5 pts.

\_\_\_\_\_

2) Project will avoid duplication of efforts of similar projects/programs. 0-5 pts.

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**Monitoring and Evaluation****Score**

**NOTE:** Due to potential changes in size and scope, the Quality Assurance Project Plan (QAPP) for a watershed project is not developed until the final project plan is completed. Therefore, since a QAPP is not included in the draft watershed project proposals, the monitoring and evaluation section should not be scored when reviewing draft watershed projects.

1) An approved Quality Assurance Project Plan (QAPP) will be followed to collect data and information needed to monitor and evaluate the project. 0-5 pts

\_\_\_\_\_

2) QAPP monitoring goals and objectives are summarized and appropriate for measuring progress toward NPS pollutant reduction goals . 0-5 pts.

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**Budget****Score**

1) Costs are well defined, reasonable and appropriate for the identified goals. 0-5 pts

\_\_\_\_\_

2) Sufficient non-federal local/state support is budgeted to match the requested Section 319 funding. [ No - 0 pts.] or [Yes -10 pts.]

\_\_\_\_\_

**SUBTOTAL**

\_\_\_\_\_

**TOTAL SCORE**\_\_\_\_\_

**Funding Recommendation****Priority Ranking**

\_\_\_\_\_ Fully Fund  
\_\_\_\_\_ Partially Fund at more than 50% of requested amount.  
\_\_\_\_\_ Partially Fund at less than 50% of requested amount  
\_\_\_\_\_ Do not Fund

\_\_\_\_\_ High Priority (90-135 points)  
\_\_\_\_\_ Medium Priority (45-89 points)  
\_\_\_\_\_ Low Priority (< 45 points)

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Appendix 3**

### **Evaluation Worksheet for Final Project Proposals**

## Final Project Proposal Evaluation & Prioritization Worksheet

**Project Name:** \_\_\_\_\_

*NOTE: The following criteria should be considered when evaluating the statewide and/or programmatic benefits of the final project proposals. Each criterion should be ranked on a 0 to 10 point scale. A score of "0" will indicate very low programmatic benefits and a score of "10" will indicate very high benefits.*

1) Location of the project will help expand NPS Program efforts into an area of the state with only minimal NPS pollution management activity. \_\_\_\_\_

2) The project will implement and demonstrate a unique or innovative approach for addressing specific or multiple sources and/or causes of NPS pollution. \_\_\_\_\_

3) The project is addressing a substantial, well defined NPS pollution issue or concern in the state. \_\_\_\_\_

4) The delivery process; BMP's applied or demonstrated; or information generated and/or disseminated by the project will have statewide applications and can be easily transferred to other projects. \_\_\_\_\_

5) The project will provide or demonstrate a cost effective approach for addressing NPS pollution in the state. \_\_\_\_\_

6) Project progress will be measurable and the information and data can also be used to evaluate overall program benefits and accomplishments . \_\_\_\_\_

**TOTAL SCORE** \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Appendix 4**

### **Nine Key Elements of the ND Nonpoint Source Pollution Management Program**

## **NINE KEY ELEMENTS OF THE ND NPS PROGRAM**

Program guidance developed by the EPA identifies nine key elements that must be included in an effective state NPS Pollution Management Program. Each of the elements was addressed through the August 2009 updates of the ND NPS Pollution Management Program Plan. This section summarizes where and how the nine key elements have been addressed in the updated Management Program Plan. Each element is stated in bold, followed by applicable discussion.

### **1. The state program contains explicit short and long term goals, objectives and strategies to protect surface and ground water.**

The State's mission statement and long-term goal for the NPS Management Program are found in the Introduction of the Plan, and is consistent with the national goal established in the Clean Water Act. Sections IV through IX of the State NPS Management Plan identify specific short and long term goals, objectives, and major action items. These sections are: Resource Assessment; Prioritization; Assistance; Coordination; Information/Education; and Program Evaluation.

### **2. The state strengthens its working partnerships and linkages to appropriate state, interstate, Tribal, regional, and local entities (including conservation districts), private sector groups, citizen groups, and Federal agencies.**

The Coordination Section of the addresses this element in detail. The current working partnerships between appropriate state, interstate, and federal agencies are accomplished through the Task Force. Numerous regional/local entities, private sector groups, citizen groups, and conservation districts are also directly involved in the NPS Program through the Task Force and/or through sponsorship of local NPS projects. However, there is a recognized need to strengthen local working partnerships, and that is reflected in the Program efforts to continue to establish and participate on Local Project Advisory Committees. These local committees are effective in identifying specific local priorities and help ensure greater coordination between NPS Program efforts and the local NPS pollution abatement activities.

### **3. The state uses a balanced approach that emphasizes both statewide nonpoint source programs and on-the-ground management of individual watersheds where waters are impaired or threatened.**

This element is addressed throughout the Management Plan, particularly in sections IV through IX. In each section there is information describing state and local efforts that will be initiated to address NPS pollution impacts to the state's surface and ground water resources. As in the past, a majority of the NPS Program's activities will involve coordination with local resource managers and be directed toward the development and implementation of local projects addressing identified NPS pollution concerns.

**4. The state program (a) abates known water quality impairments from nonpoint source pollution and (b) prevents significant threats to water quality from present and future nonpoint source activities.**

Each section of the Management Plan addresses various components of the state's overall efforts to identify and address beneficial uses impaired due to NPS pollution. As in past years, voluntary implementation of best management practices (BMPs) and public education will be the primary means used to abate and/or prevent water quality and/or beneficial use impairments caused by NPS pollution. Section VIII describes the NPS Program's I/E efforts. The NPS Program's BMP Cost Share Guidelines are available at [http://www.ndhealth.gov/WQ/sw/Z1\\_NPS/default.htm](http://www.ndhealth.gov/WQ/sw/Z1_NPS/default.htm). Specific BMPs which are applied within a particular watershed will be dependent on the sources and causes of NPS pollution and landowner acceptance of the proposed BMPs. Public education and one-on-one technical assistance are the primary means used to promote specific practices and gain landowner/public support for the watershed projects

**5. The state program identifies waters and their watersheds impaired by nonpoint source pollution and identifies important unimpaired waters that are threatened or otherwise at risk. Further, the state establishes a process to progressively address these identified waters by conducting more detailed watershed assessments and developing watershed implementation plans, and then by implementing the plans.**

As stated in the Assessment Section, various information sources [e.g. Integrated Report; NPS Assessment reports, TMDL's, etc.] are used to document impaired waters in the state. The steps for prioritizing these waterbodies are presented under the Prioritization section. Generally, all watershed projects are initiated as a development/assessment phase project and proceed to the watershed phase as the sources and causes of NPS pollution are identified. Specific goals, objectives, and major actions are provided in the Assessment, Prioritization, and Assistance Sections of the Plan

**6. The state reviews, upgrades, and implements all program components required by Section 319(b) of the Clean Water Act, and establishes flexible, targeted and iterative approaches to achieve and maintain beneficial uses of water as expeditiously as practicable. The state programs include:**

- > A mix of water quality based and/or technology based programs designed to achieve and maintain beneficial uses of water; and**
- > A mix of regulatory, non-regulatory, financial and technical assistance as needed to achieve and maintain beneficial uses of water as expeditiously as practicable.**

(a) Sections IV and V discuss the NPS Program's efforts associated with the assessment and prioritization of waterbodies with beneficial use impairments due to NPS pollution. Section VI describes the delivery of financial and technical assistance for addressing the identified use



impairments. Specific control measures approved for support through the NPS Program are listed in the BMP Cost Share Guidelines ([http://www.ndhealth.gov/WQ/sw/Z1\\_NPS/default.htm](http://www.ndhealth.gov/WQ/sw/Z1_NPS/default.htm)). Section IX identifies state and local efforts for evaluating beneficial use improvements.

**7. The state identifies Federal lands and activities that are not managed consistently with state nonpoint source program objectives. Where appropriate, the state seeks EPA assistance to help resolve issues.**

Department staff will periodically review information (e.g., EIS, program policies, etc.) on other state and federal programs or projects to evaluate consistency with NPS Program goals and objectives. The Department also has active working relationships, through the Task Force, with the federal agencies responsible for the management of federal lands in the state. The Coordination section describes specific actions that will be initiated to ensure other state/federal lands and programs are managed consistently with the state's NPS pollution management goals and objectives.

**8. The state manages and implements its nonpoint source program efficiently and effectively, including necessary financial management.**

The NPS Program recognizes that effective and efficient program management must involve a coordinated effort to capitalize on all available financial and technical resources. Coordination of the available private and local/state/federal resources starts during project development and continues through the implementation phase of all projects. Each section of the Plan includes objectives that are related to the implementation and delivery of the NPS Program.

The Department's Division of Accounting uses an EPA-approved financial accounting system to track and document the expenditure of Section 319 funds committed for NPS pollution management in the state. The NPS Program also has separate databases for tracking local project expenditures and match as well as the costs, amounts and locations of applied BMP. Contractual agreements are used to identify state and local financial commitments as they relate to the implementation of each NPS project. The financial expenditures of local sponsorships are reviewed on a monthly or quarterly basis. Specific objectives related to financial management are described in the Evaluation and Assistance sections.

**9. The state periodically reviews and evaluates its nonpoint source management program using environmental and functional measures of success, and revises its nonpoint source assessment and its management program at least every five years.**

The objectives related to the evaluation of the NPS Program are provided in Section IX. Updates to the Management Plan will be scheduled to occur every five years. It is anticipated, however, that more frequent updates may be needed to accommodate feedback from the Task Force, project coordinators and the Local Project Advisory Committees.